

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for generating a constant envelope combined signal, signal in a communications system, comprising:

generating a combined signal in a communications system that is a combination of a plurality of input signals;

attenuating amplitudes of selected ones of the input signals to generate attenuated input signals; and

outputting combining the attenuated input signals and other non-attenuated ones of the input signals for generating the to generate a constant envelope combined-signal signal; and

outputting the constant envelope combined signal.

2. (Currently Amended) The method of claim 1, further comprising:

generating a similarity measurement between each of the input signals and the combined signal; and

selecting ones of the input signals for attenuation based on the similarity measurement.

3. (Currently Amended) The method of claim 2, generating a similarity measurement further comprising:

multiplying time sample values of each of the input signals with corresponding time-values of the combined signal to generate products; and

summing the products to form the similarity measurement.

4. (Previously Presented) The method of claim 2, generating a similarity measurement further comprising:

cross-correlating each of the input signals with the combined signal.

5. (Previously Presented) The method of claim 4, cross-correlating each of the input signals further comprising:

sweeping one of each of the input signals and the combined signal pass each other; and

generating a dot product for each sweep increment between overlapping portions of each of the input signals and the combined signal.

6. (Previously Presented) The method of claim 2, selecting ones of the input signals further comprising:

comparing the similarity measurements with one of a predetermined selection threshold value or a parameter based on a combined signal power value to generate comparison results; and

selecting the ones of the input signals based on the comparison results.

7. (Previously Presented) The method of claim 2, selecting ones of the input signals further comprising:

comparing the similarity measurements with each other; and

selecting N number of input signals that correspond to N largest similarity measurements, where N is a positive integer.

8. (Original) The method of claim 7, further comprising determining a value for N by empirical analysis of combined signals.

9. (Original) The method of claim 1, further comprising generating attenuation values corresponding to each of the selected ones of the input signals.

10. (Currently Amended) The method of claim 9, generating attenuation values further comprising at least one of:

selecting one of a predetermined attenuation value or an generated attenuation value based on a number of selected ones of the input signals;

generating an attenuation value based on an amount that the combined signal exceeded one of a threshold or a combined signal power value;

generating an attenuation value for each of the selected ones of the input signals based on a magnitude of the similarity measurements; and

generating attenuation values for each of the selected ones of the input signals based on at least one of magnitudes of the similarity measurements, the combined signal power value, and/or the amount that the combined signal exceeded one of the threshold or the combined signal power value.

11. (Original) The method of claim 1, wherein the combined signal is generated by summing the input signals.

12. (Currently Amended) The method of claim 1, wherein generating a combined signal, attenuating amplitudes of selected ones of the input signals, and outputting combining the attenuated input signals and other non-attenuated ones of the input signals, signals, and outputting the constant envelope combined signal are performed using one of analog or digital techniques.

13. (Currently Amended) A method for generating a constant envelope combined signal, signal in a communications system, comprising:

generating a combined signal in a communications system that is a combination of a plurality of input signals;

generating a similarity measurement between each of the input signals and the combined signal;

comparing the similarity measurements with one of a predetermined selection threshold value or a parameter based on a combined signal power value to generate comparison results;

selecting the ones of the input signals based on the comparison results;

attenuating amplitudes of the selected ones of the input signals to generate attenuated input signals; and

outputting combining the attenuated input signals and other non-attenuated ones of the input signals for generating the to generate a constant envelope combined signal; and

outputting the constant envelope combined signal.

14. (Currently Amended) An apparatus that outputs signals that combines into a constant envelope combined signal in a communications system, comprising:

a controller; and

a memory coupled to the controller, the controller that controls the generating of a combined signal in a communications system that is a combination of a plurality of input signals, and the attenuating of amplitudes of selected ones of the input signals to generate attenuated input signals; signals; and

a memory coupled to the controller,

wherein the attenuated input signals and other non-attenuated ones of the input signals may be output for combination combined to form the for output a constant envelope combined signal.

15. (Currently Amended) The apparatus of claim 14, wherein the controller comprises:

a similarity measurement device; device that generates a similarity measurement between each of the input signals and the combined signal; and

an attenuation value generator, ~~the similarity measurement device generating a similarity measurement between each of the input signals and the combined signal, and the attenuation value generator selecting that selects~~ ones of the input signals based on the similarity measurement.

16. (Original) The apparatus of claim 15, wherein the similarity measurement device generates the similarity measurement by multiplying sample values of each of the input signals with corresponding values of the combined signal to generate products, and summing the products to form the similarity measurement.

17. (Original) The apparatus of claim 15, wherein the similarity measurement device generates the similarity measurement by cross-correlating each of the input signals with the combined signal.

18. (Original) The apparatus claim 17, wherein the cross-correlating comprises:
sweeping one of each of the input signals and the combined signal pass each other; and

generating a dot product for each sweep increment between overlapping portions of each of the input signals and the combined signal.

19. (Original) The apparatus claim 15, wherein the attenuation value generator selects the ones of the input signals by:

comparing the similarity measurements with one of a predetermined selection threshold value or a parameter based on a combined signal power value to generate comparison results; and

selecting the ones of the input signals based on the comparison results.

20. (Original) The apparatus of claim 15, wherein the attenuation value generator selects the ones of the input signals by:

comparing the similarity measurements with each other; and

selecting N number of input signals that correspond to N largest similarity measurements, where N is a positive integer.

21. (Original) The apparatus of claim 20, wherein a value for N is determined by empirical analysis of combined signals.

22. (Original) The apparatus of claim 15, wherein the attenuation value generator generates attenuation values corresponding to each of the selected ones of the input signals.

23. (Currently Amended) The apparatus of claim 15, wherein the attenuation value generator generates attenuation values by at least one of:

selecting one of a predetermined attenuation value or an generated attenuation value based on a number of selected ones of the input signals;

generating an attenuation value based on an amount that the combined signal exceeded one of a threshold or a combined signal power value;

generating an attenuation value for each of the selected ones of the input signals based on a magnitude of the similarity measurements; and

generating attenuation values for each of the selected ones of the input signals based on at least one of magnitudes of the similarity measurements, the combined signal power value, and/or the amount that the combined signal exceeded one of the threshold or the combined signal power value.

24. (Original) The apparatus of claim 14, wherein the combined signal is generated by summing the input signals.

25. (Currently Amended) The apparatus of claim 14, wherein the apparatus generates the constant envelope combined signal using one of analog or digital techniques.

26. (Currently Amended) An apparatus that outputs ~~signals that combines into a~~ constant envelope combined signal, comprising:

a controller;

a memory coupled to the controller;

a first combiner that generates a combined signal that is a combination of a plurality of input signals;

a similarity measurement device that ~~generating~~generates a similarity measurement between each of the input signals and the combined signal; and

an attenuation value generator that selects ones of the input signals based on the similarity measurement;

an attenuator that attenuates amplitudes of the selected ones of the input signals to generate attenuated input signals; and

~~an output interface that outputs a second combiner that combines the attenuated input signals and other non-attenuated ones of the input signals that may be combined to form the constant envelope combined signal; and~~

an output interface that outputs the constant envelope combined signal.

27. (Currently Amended) A device for generating a constant envelope combined signal, ~~signal in a communications system,~~ comprising:

means for generating a combined signal ~~in a communications system~~ that is a combination of a plurality of input signals;

means for generating a similarity measurement between each of the input signals and the combined signal;

means for comparing the similarity measurements with one of a predetermined selection threshold value or a parameter based on a combined signal power value to generate comparison results;

means for selecting ~~the~~ ones of the input signals based on the comparison results;

means for attenuating amplitudes of the selected ones of the input signals to generate attenuated input signals; and

means for outputting combining the attenuated input signals and other non-attenuated ones of the input signals ~~for generating the to generate a constant envelope combined signal.~~ signal; and

means for outputting the constant envelope combined signal.